



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Ergonomics in the Product Design Process

ISE 5610

Credit Hours:

3.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level)

Graduate

Course Components:

Lecture

Course Description:

Provides students with an understanding of where and how ergonomic principles are incorporated into the design and evaluation of consumer products.

Prerequisites and Co-requisites:

Prereq: 3600 and 3700 or equiv.

Course Goals / Objectives:

- Expose students to the major phases of the product design process
 - Identify where there are opportunities to incorporate ergonomics knowledge in the product design process
 - Consider the ramifications of different types of product decisions
-

Course Topics:

- Where does ergonomics/human factors fit into the product design process?
 - Generating product concepts
 - Understanding the user
 - Idea generation processes
 - Anthropometry in product design
 - Biomechanical principles applied to product design
 - Controls, displays, and mental models in product design
 - Focus groups
 - Concept models
 - Handle design and hand tools
 - Usability testing
 - Design for an aging population
 - Universal design
 - Design of instructions
 - Product misuse
 - Warning labels
 - Product liability
 - Patent law
-

Designation:

Elective